A B S T R A C T

A PROCESS FOR THE CATALYTIC CONVERSION OF A GASOLINE COMPOSITION

A process for the catalytic conversion of a gasoline composition into a gas mixture containing carbon monoxide and hydrogen is provided, comprising contacting a mixture of the gasoline composition and an oxygen-containing gas and/or steam with a catalyst for steam reforming, autothermal reforming or partial oxidation. The gasoline composition contains at most 40% by volume of alkylate and at most 3% by volume of olefins having 6 or more carbon atoms and has a RON of at least 85. The gas mixture comprising carbon monoxide and hydrogen can be further contacted with a water-gas shift conversion catalyst in the presence of steam to obtain a water-gas shift effluent, and optionally selectively oxidising the then remaining carbon monoxide by contacting the water-gas shift effluent with a catalyst for the selective oxidation of carbon monoxide, to produce a hydrogen-rich gas stream. The products can be fed to the anode of a fuel cell.